Permit to Operate

FACILITY: S-2918 EXPIRATION DATE: 06/30/200

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT

MAILING ADDRESS: ATTN: D. WINSTON

BAKERSFIELD, CA 93309

FACILITY LOCATION: LIGHT OIL CENTRAL

KERN COUNTY, CA

FACILITY DESCRIPTION: OIL AND NATURAL GAS PRODUCTION

The Facility to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

The Permit to Opertae remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

<u>DAVID L. CROW</u>

Executive Director / APCO

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Diector of Permit Services

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-0-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

- 1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)], [Federally Enforceable Through Title V]
- 2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)], [Federally Enforceable Through Title V]
- 3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0], [Federally Enforceable Through Title V]
- 4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (Amended September 17, 1998). [District Rules 2010, 3.0 and 4.0; and 2020], [Federally Enforceable Through Title V]
- 5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1], [Federally Enforceable Through Title V]
- 6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031], [Federally Enforceable Through Title V]
- 7. Every application for a permit required under Rule 2010 (12/17/92) (Permits Required) shall be filed in a manner and form prescribed by the District. [District Rule 2040], [Federally Enforceable Through Title V]
- 8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.5.1], [Federally Enforceable Through Title V]
- 9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.6.1], [Federally Enforceable Through Title V]
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520(6/15/95) [District Rules 2520, 9.6.2 and 1100, 7.0], [Federally Enforceable Through Title V]
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.8], [Federally Enforceable Through Title V]

- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.9.2], [Federally Enforceable Through Title V]
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.9.3], [Federally Enforceable Through Title V]
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.9.4], [Federally Enforceable Through Title V]
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.9.5], [Federally Enforceable Through Title V]
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.10], [Federally Enforceable Through Title V]
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.14.2.1], [Federally Enforceable Through Title V]
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.14.2.2], [Federally Enforceable Through Title V]
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.14.2.3], [Federally Enforceable Through Title V]
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.14.2.4], [Federally Enforceable Through Title V]
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (12/17/92), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)], [Federally Enforceable Through Title V]
- 23. No person shall supply, sell, solicit or apply any architectural coating, except specialty coatings, that contains more than 250 grams of VOC per liter of coating (less water and exempt compounds, and excluding any colorant added to tint bases), or manufacture, blend, or repackage such coating with more than 250 grams of VOC per liter (less water and exempt compounds, and excluding any colorant added to tint bases) for use within the District. [District Rule 4601, 5.1], [Federally Enforceable Through Title V]
- 24. Specialty Coating Limitations: No person shall apply, sell, solicit, or offer for sale any architectural coating listed in the Tables of Standards (District Rule 4601, Table 1 and Table 2), nor manufacture, blend, or repackage such coating for use within the District, which contains VOCs in excess of the specified limits after the corresponding date listed in Table 1(grams of VOC per liter of coating as applied less water and exempt compounds, excluding any colorant added to tint bases) and in Table 2 (grams of VOC per liter of material), except as provided in Section 5.3 of Rule 4601. [District Rule 4601, 5.2], [Federally Enforceable Through Title V]
- 25. All VOC-containing materials shall be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired. [District Rule 4601, 5.4], [Federally Enforceable Through Title V]
- 26. A person shall not use VOCs for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used. [District Rule 4601, 5.5], [Federally Enforceable Through Title V]
- 27. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.2 (12/17/92). [District Rule 4601, 6.1 and 6.2], [Federally Enforceable Through Title V]
- 28. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.14.1and 10.0], [Federally Enforceable Through Title V]
- 29. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F], [Federally Enforceable Through Title V]
- 30. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, [Federally Enforceable Through Title V]

- 31. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8020 (4/25/96) unless specifically exempted under section 4 of Rule 8020 (4/25/96). [District Rule 8020], [Federally Enforceable Through Title V]
- 32. Outdoor handling and storage of any bulk material which emits dust shall comply with the requirements of SJVUAPCD Rule 8030 (4/25/96), unless specifically exempted under section 4 of Rule 8030 (4/25/96). [District Rule 8030], [Federally Enforceable Through Title V]
- 33. Any paved road over 3 miles in length, and any unpaved roads over half a mile in length, constructed after December 10, 1993 shall use the design criteria and dust control measures of, and comply with the administrative requirements of, SJVUAPCD Rule 8060 (4/25/96) unless specifically exempted under section 4 of Rule 8060 (4/25/96). [District Rule 8060], [Federally Enforceable Through Title V]
- 34. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M], [Federally Enforceable Through Title V]
- 35. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.17], [Federally Enforceable Through Title V]
- 36. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2], [Federally Enforceable Through Title V]
- 37. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permit shall apply. [District Rule 2520, 9.1.1], [Federally Enforceable Through Title V]
- 38. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2], [Federally Enforceable Through Title V]
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (12/17/92); 4601, sections 5.1, 5.2, 5.4, 5.5, 6.1, and 6.2 (9/17/97); 8020 (4/25/96); 8030 (4/25/96); 8060 (4/25/96); A permit shield is granted from these requirements. [District Rule 2520, 13.2], [Federally Enforceable Through Title V]
- 40. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 41. To maintain status as a small producer, permittee's crude oil production shall average less than 6000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623], [Federally Enforceable Through Title V]
- 42. The operator shall maintain records of average daily throughput of crude oil production. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 43. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68], [Federally Enforceable Through Title V]
- 44. Each hatch shall be closed at all times except during sampling or attended maintenance operations. [District Rule 4403, 5.1.1], [Federally Enforceable Through Title V]
- 45. A leak shall be defined as any of the following: 1) the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs; or 2) a reading as methane in excess of 20,000ppm above background when measured at a distance of one (1) centimeter from the potential source in accordance with EPA method 21 with the instrument calibrated with methane. [District Rule 4403, 3.2.1], [Federally Enforceable Through Title V]
- 46. All components containing VOCs shall be inspected by the facility operator annually to ensure compliance with the provisions of this permit. The inspections shall be conducted in accordance with EPA Method 21, with the instrument calibrated with methane. If two (2) percent or more of the qualifying components are found to leak during an annual inspection, the inspection frequency for that type of component shall be changed from annual to quarterly. If less than two (2) percent of the qualifying components are subsequently found to be leaking during five (5) consecutive quarterly inspections, the inspection frequency for that type of component may be changed from quarterly to annual. [District Rule 4403, 5.1.2], [Federally Enforceable Through Title V]
- 47. Components that have been identified in the operator management plan (as approved by APCO) as located in inaccessible location shall be inspected and repaired at least annually. Components that have been identified in the operator management plan as located in areas which cause inspection to be unsafe for personnel shall be inspected and repaired at the next process unit turnaround. [District Rule 4403, 5.1.3], [Federally Enforceable Through Title V]

- 48. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of District Rule 4403. [District Rule 4403, 5.1.4], [Federally Enforceable Through Title V]
- 49. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 4403, 5.1.5], [Federally Enforceable Through Title V]
- 50. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection pursuant to District Rule 4403, 5.3 shall not be in violation per Rule 4403, 5.1.2. [District Rule 4403, 5.1.6], [Federally Enforceable Through Title V]
- 51. The number of leaks of a component type exceed shall not exceed one (1) component, or two (2) percent of that type that were inspected, whichever is greater, and that are subject to the requirements of this rule. For inspections conducted by District personnel to determine compliance, the number of components inspected shall constitute a statistically representative sample (as defined in District Rule 4403, Section 3.1.11, as amended 2/16/95) for each component type. [District Rule 4403, 5.1.7], [Federally Enforceable Through Title V]
- 52. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 4403, 5.3.1], [Federally Enforceable Through Title V]
- 53. Any vapor control device, other than a flare, used to comply with District Rule 4403, section 5.3.1 shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2 and District Rule 4403, 5.3.1], [Federally Enforceable Through Title V]
- 54. If a leaking component is an essential part of a critical process identified in the operator management plan and which cannot be immediately shut down for repairs, the operator shall: 1) minimize the leak within 15 calendar days, and 2) if a leak which has been minimized still exceeds the limits in defined in the permit conditions, as applicable, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [District Rule 4403, 5.3], [Federally Enforceable Through Title V]
- Each operator shall maintain an inspection log containing, at a minimum, the following: 1) name, location, type of components, and description of any unit where leaking components are found; 2) date of leak detection, emission level (ppm) of leak, and method of detection; date and emission level of recheck after leak is repaired; 3) total number of components inspected, and total number and percentage of leaking components found; 4) identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 4403, 6.2], [Federally Enforceable Through Title V]
- 56. Any component leak identified by a Notice to Repair issued by the District shall be repaired and reinspected as specified in District Rule 4403, 5.1.4, and 5.1.5, as appropriate. [District Rule 4403, 5.3.2], [Federally Enforceable Through Title V]
- 57. Samples shall be analyzed by using ASTM Methods E-260, E-168, or E-169 and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432. [District Rule 4403, 6.3.1], [Federally Enforceable Through Title V]
- 58. Emissions of VOC shall be measured by EPA Method 25, 25a, or 25b, as applicable, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422. [District Rule 4403, 6.3.2], [Federally Enforceable Through Title V]
- The True Vapor Pressure (TVP) of organic liquids, including light crude and petroleum distillates, shall be determined as specified in District Rule 4403, 6.3.3 (Amended February 16, 1995). [District Rule 4403, 6.3.3], [Federally Enforceable Through Title V]
- 60. Leak detection shall be performed in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 4403, 6.3.4], [Federally Enforceable Through Title V]
- 61. API gravity of crude oil shall be determined by using ASTM D-1298. [District Rule 4403, 6.3.5], [Federally Enforceable Through Title V]
- 62. Operator shall submit an operator management plan to APCO as required by Rule 4403, 6.1 (as amended December 17, 1992). [District Rule 4403, 6.1], [Federally Enforceable Through Title V]
- 63. Operator shall maintain accurate monthly records of Gas-to-oil ratio (GOR) and API gravity of liquids produced showing that facility exclusively processes, stores, or transfers black oil (as defined in 40 CFR 63.761). [40 CFR 63.10(b)], [Federally Enforceable Through Title V]
- 64. On March 16, 2001, the initial Title V permit was issued, the reporting period of the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of reporting period. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-1-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

32.5 MMBTU/HR NATIONAL AIR OIL BURNER CO. MODEL NAFV FLARE WITH AUTOMATIC SPARK IGNITED PILOT AND COMBUSTION AIR BLOWER (PANAMA LEASE)

- 1. The flare is approved to operate at the following locations; Sec. 15, T30s, R27E and Sec. 7, T29s, R26E. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. Flare shall be equipped with recording operational flow meter. [District NSR Rule], [Federally Enforceable Through Title V]
- 3. Natural gas shall be used as pilot fuel. [District NSR Rule], [Federally Enforceable Through Title V]
- 4. Sulfur concentration of gas flared shall not exceed 5 ppmv. [District NSR Rule], [Federally Enforceable Through Title V]
- 5. Air contaminant emissions shall not exceed the following limits: PM10: 0.0202 lb/MMBtu, ; NOx (as NO2): 0.068 lb/MMBtu, CO: 0.37 lb/MMBtu. [District NSR Rule], [Federally Enforceable Through Title V]
- 6. Non breakdown operation shall not exceed 300 Mscf per day and 2045 Mscf per year. [District NSR Rule], [Federally Enforceable Through Title VI
- 7. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070], [Federally Enforceable Through Title V]
- 8. Permittee shall maintain accurate records of quantity of non-emergency/non-pilot gas combusted in the flare and shall make such records available to District staff upon request. Records shall be maintained for a period of no less than five years. [District Rule 1070 and District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 9. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)], [Federally Enforceable Through Title V]
- 10. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)], [Federally Enforceable Through Title V]
- 11. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once every two weeks for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 13. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. Actual flare emissions shall not exceed 20 tons VOC/year. Process information, including fuel usage data for the flare and process rates for operations controlled by the flare, shall be submitted to the District annually to demonstrate compliance with this requirement. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)], [Federally Enforceable Through Title V]
- 16. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)], [Federally Enforceable Through Title V]
- 17. Air-assisted flares shall be operated with an exit velocity less than Vmax, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)], [Federally Enforceable Through Title V]

- 18. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)], [Federally Enforceable Through Title V]
- 19. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)], [Federally Enforceable Through Title V]
- 20. To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If the semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-2-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

32.5 MMBTU/HR NATIONAL AIR OIL BURNER CO. MODEL NAFV FLARE WITH AUTOMATIC SPARK IGNITED PILOT AND COMBUSTION AIR BLOWER (PANAMA LEASE)

- 1. Assist air blower shall be capable of providing at least 20% of stochiometric combustion air requirement. [District Rule 2080], [Federally Enforceable Through Title V]
- 2. Flare shall be equipped with recording operational flow meter. [District NSR Rule], [Federally Enforceable Through Title V]
- 3. Natural gas shall be used as pilot fuel. [District Rule 2080], [Federally Enforceable Through Title V]
- 4. H2S concentration of gas flared shall not exceed 5 ppmv. [District NSR Rule], [Federally Enforceable Through Title V]
- No more than 46,000 scf of gas (pilot gas plus waste gas) shall be flared in any day. [District NSR Rule], [Federally Enforceable Through Title
 V1
- 6. Emission rates shall not exceed the following: PM10: 0.9 lb/day, NOx (as NO2): 3.1 lb/day, VOC: 4.0 lb/day, and CO: 17.0 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 7. Permittee shall maintain accurate daily records of amount of gas flared, and shall make such records available upon District request for a period of five years. [District Rule 1070 and District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 8. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)], [Federally Enforceable Through Title V]
- 9. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)], [Federally Enforceable Through Title V]
- 10. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once every two weeks for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 12. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Actual flare emissions shall not exceed 20 tons VOC/year. Process information, including fuel usage data for the flare and process rates for operations controlled by the flare, shall be submitted to the District annually to demonstrate compliance with this requirement. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)], [Federally Enforceable Through Title V]
- 15. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)], [Federally Enforceable Through Title V]
- 16. Air-assisted flares shall be operated with an exit velocity less than Vmax, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)], [Federally Enforceable Through Title V]
- 17. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)], [Federally Enforceable Through Title V]
- 18. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)], [Federally Enforceable Through Title V]

19.	To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content. If compliance with the fuel
	sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing
	frequency shall be semi-annually. If the semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule
	2520, 9.4.2], [Federally Enforceable Through Title V]

20.	The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC
	FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-3-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON PETROLEUM STORAGE TANK (T-1001), SERVED BY VAPOR CONTROL SYSTEM SHARED BETWEEN S-2918-3, -4, -5, -15, & -16 (PANAMA LEASE)

- 1. Operation shall include 36" diameter by 10' high vertical liquid/gas separator; 48" diameter by 10' long horizontal gas/liquid separator, and 42,000 gallon 40' diameter by 16' high produced water tank (WW-15). [District NSR Rule], [Federally Enforceable Through Title V]
- Operation shall include Varec Model 2010-51 pressure relief valve with flame arrestor and vapor compressor. [District Rule 4623], [Federally Enforceable Through Title V]
- VOC vapors shall be incinerated in a permit exempt 1.5 MMBTU/hr heater treater. [District NSR Rules & 4623], [Federally Enforceable Through Title V]
- 4. True vapor pressure of liquids stored shall not exceed 6 psia. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 5. Tank throughput shall not exceed 667 bbl/day. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 6. Tank vapor control system shall be capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule & 4623, 5.3.1], [Federally Enforceable Through Title V]
- 7. The permittee shall keep accurate records of True vapor pressure, Reid vapor pressure, storage temperature, types of liquids stored in each container and daily throughput for a period of five years, and shall make such records available for District inspection upon request. [District Rules 4623, 6.1, 2520, 9.4.2, 2520, 9.5.2, and District NSR Rule], [Federally Enforceable Through Title V]
- 8. VOC emissions (including fugitive emissions) from this permit unit shall not exceed 0.5 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 10. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title VI
- 16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 18. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 19. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 20. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 21. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 22. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 24. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 25. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-4-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON PETROLEUM STORAGE TANK (T-1002), SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-2918-3 (PANAMA LEASE)

- 1. Operation shall include Varec Model 2010-51 pressure relief valve with flame arrestor. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. True vapor pressure of liquids stored shall not exceed 6 psia. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 3. Tank throughput shall not exceed 667 bbl/day. [District NSR & 4623], [Federally Enforceable Through Title V]
- 4. The permittee shall keep accurate records of True vapor pressure, Reid vapor pressure, storage temperature, types of liquids stored and daily throughput for a period of five years, and shall make such records available for District inspection upon request. [District Rules 4623, 6.1, 2520, 9.4.2, 2520, 9.5.2, and District NSR Rule], [Federally Enforceable Through Title V]
- 5. VOC emissions (including fugitive emissions) from this permit unit shall not exceed 0.5 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule and District Rule 4623, 5.3.1], [Federally Enforceable Through Title V1
- 7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 16. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 17. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 18. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 19. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 20. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 22. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-5-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON PETROLEUM STORAGE TANK (T-1003), SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-2918-3 (PANAMA LEASE)

- 1. Operation shall include Varec Model 2010-51 pressure relief valve with flame arrestor. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. True vapor pressure of liquids stored shall not exceed 6 psia. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 3. Tank throughput shall not exceed 667 bbl/day. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 4. The permittee shall keep accurate records of True vapor pressure, Reid vapor pressure, storage temperature, types of liquids stored and daily throughput for a period of two years, and shall make such records available for District inspection upon request. [District Rules 4623, 6.1, 2520, 9.4.2, 2520, 9.5.2, and District NSR Rule], [Federally Enforceable Through Title V]
- 5. VOC emissions (including fugitive emissions) from this permit unit shall not exceed 0.5 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule and District Rule 4623, 5.3.1], [Federally Enforceable Through Title V1
- 7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 16. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 17. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 18. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 19. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 20. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 22. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-6-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 134 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE) CANCELLED PER ATC S-2918-17-0, FUNCTIONALLY IDENTICAL REPLACEMENT FOR -6 MWA 12/9/97

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-7-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 175 BHP NATURAL GAS FIRED I.C. ENGINE.

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-8-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 175 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-9-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 175 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE) CANCELLED PER ATC S-2918-19-0, FUNCTIONALLY IDENTICAL REPLACEMENT FOR -9. MWA 12/9/97

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-10-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 175 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE) CANCELLED PER ATC S-2918-20-0 FUNCTIONALLY IDENTICAL REPLACEMENT FOR -10. MWA 12/9/97

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-11-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 88 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE) CANCELLED PER ATC S-2918-21-0, FUNCTIONALLY IDENTICAL REPLACEMENT FOR -11. MWA 12/9/97

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-12-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 175 BHP NATURAL GAS FIRED I.C. ENGINE. (PANAMA LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-13-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

ONE 88 BHP NATURAL GAS FIRED I.C. ENGINE. (PTO CANCELLED PER 9/20/96 LETTER. LETTER STATES ENGINE IS 28 HP AND IS THEREFORE EXEMPT PER RULE 2020, SECTION 5.1.1. PLY)

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-14-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

215 BHP NATURAL GAS FIRED I.C. ENGINE (PANAMA LEASE) (CANCELLED BY PERMITTEE PER 10/19/99 LETTER - HAR 10/19/99)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-15-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON PETROLEUM STORAGE TANK (T-2001), SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-2918-3 (PANAMA LEASE)

- 1. Operation shall include Varec Model 2010-51 pressure relief valve with flame arrestor. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. True vapor pressure of liquids stored shall not exceed 6 psia. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 3. Tank throughput shall not exceed 667 bbl/day. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 4. The permittee shall keep accurate records of True vapor pressure, Reid vapor pressure, storage temperature, types of liquids stored and daily throughput for a period of five years, and shall make such records available for District inspection upon request. [District Rules 4623, 6.1, 2520, 9.4.2, 2520, 9.5.2, and District NSR Rule], [Federally Enforceable Through Title V]
- 5. VOC emissions (including fugitive emissions) from this permit unit shall not exceed 0.5 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule and District Rule 4623, 5.3.1], [Federally Enforceable Through Title V1
- 7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 16. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 17. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 18. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 19. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 20. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 22. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2], [Federally Enforceable Through Title V]
- 23. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2], [Federally Enforceable Through Title V]
- 24. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2], [Federally Enforceable Through Title V]
- 25. Operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 26. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 27. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-16-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

84,000 GALLON PETROLEUM STORAGE TANK (T-2002), SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-2918-3 (PANAMA LEASE)

- 1. Operation shall include Varec Model 2010-51 pressure relief valve with flame arrestor. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. True vapor pressure of liquids stored shall not exceed 6 psia. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 3. Tank throughput shall not exceed 2600 bbl/day. [District NSR Rule & 4623], [Federally Enforceable Through Title V]
- 4. The permittee shall keep accurate records of True vapor pressure, Reid vapor pressure, storage temperature, types of liquids stored and daily throughput for a period of five years, and shall make such records available for District inspection upon request. [District Rules 4623, 6.1, 2520, 9.4.2, 2520, 9.5.2, and District NSR Rule], [Federally Enforceable Through Title V]
- 5. VOC emissions (including fugitive emissions) from this permit unit shall not exceed 1.3 lb/day. [District NSR Rule], [Federally Enforceable Through Title V]
- 6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule and District Rule 4623, 5.3.1], [Federally Enforceable Through Title V]
- 7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 16. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 17. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 18. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 19. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 20. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 22. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-17-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

60 BHP MINNEAPOLIS MOLINE MODEL 605 NATURAL GAS FIRED IC ENGINE DERATED TO 50 BHP (WELL # 1-15)(CANCELLED BY PERMITTEE @ RENEWAL BILLING-RUE 7/1/99)

- 1. Engine shall not operate above 1000 rpm. [District Rule 4701]
- 2. Upon District request, rpm shall be verified with a tachometer. [District Rule 4701]
- 3. Engine shall be modified such that maximum achievable power output is not greater than 50 bhp. [District Rule 4701]
- 4. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701]
- Emission rates shall not exceed the following: PM10 0.00 lb/hr, SOx (as SO2) 0.05 lb/day, NOx (as NO2) 1.10 lb/hr, VOC 0.03 lb/hr, CO 0.95 lb/hr. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-18-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

195 BHP WAUKESHA MODEL 1197 NATURAL GAS FIRED IC ENGINE WITH 3 WAY CATALYST (WELL #3-15).

- 1. Fuel gas sulfur content shall not exceed 0.75 grains of sulfur per 100 dry standard cubic feet of fuel gas. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. Emission concentrations shall not exceed the following: NOx (as NO2): 25 ppmvd @ 15% O2; VOC: 60 ppmvd @ 15% O2; or CO: 1000 ppmvd @ 15% O2. [District Rule 4701 and District NSR Rule], [Federally Enforceable Through Title V]
- 3. Emission rates shall not exceed the following: PM10: 0.07 lb/hr; or SOx (as SO2): 0.00 lb/hr. [District NSR Rule], [Federally Enforceable Through Title V]
- 4. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 5. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 6. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx, VOC, and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 7. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 8. If the catalyst temperature differential is outside of the normal range/level, the permittee shall notify the District and take corrective action (i.e. temperature differential returned to normal range/level) with one (1) hour of detection. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 9. The stack concentration of NOx (as NO2), VOC, CO and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, VOC, CO, and O2 concentrations recording requirements. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. The permittee shall maintain records of the date and time of NOx, VOC, CO, and O2 measurements, and the measured NO2, VOC, and CO concentrations corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. If the NOx, VOC, or CO concentrations, as measured by the portable analyzer, exceed the allowable emission concentrations, the permittee shall notify the District and take corrective action (i.e. the unit's emissions shall be in compliance with the allowable emission rate) within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Source testing for NOx, VOC, and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter. [District Rules 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. Source tests shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]

- 16. Source tests shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 18. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 19. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 20. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 26. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 forty-minute test runs for NOx, VOC and CO. This mean shall be multiplied by the appropriate factor to determine compliance with the hourly DELs. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 27. The following conditions must be met for representative units to be used to test for NOx, VOC, and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of rated brake horsepower, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 28. All units in a group for which representative units are annually source tested for NOx, VOC, CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 29. An engine operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 30. The number of representative units source tested for NOx, VOC, and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, such that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 31. Should any of the representative units exceed the required emission limits of this permit, each of the units in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-19-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

60 BHP MINNEAPOLIS MOLINE MODEL 605 NATURAL GAS FIRED IC ENGINE DERATED TO LESS THAN 50 BHP (WELL #1-22)(CANCELLED BY PERMITTEE @ RENEWAL BILLING-RUE 7/1/99)

- 1. Engine shall not operate above 1000 rpm. [District Rule 4701]
- 2. Upon District request, rpm shall be verified with a tachometer. [District Rule 4701]
- 3. Engine shall be modified such that maximum achievable power output is not greater than 50 bhp. [District Rule 4701]
- 4. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701]
- Emission rates shall not exceed the following: PM10 0.00 lb/hr, SOx (as SO2) 0.05 lb/day, NOx (as NO2) 1.10 lb/hr, VOC 0.03 lb/hr, CO 0.95 lb/hr. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-20-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

60 BHP MINNEAPOLIS MOLINE MODEL 605 NATURAL GAS FIRED IC ENGINE DERATED TO LESS THAN 50 BHP (WELL #2-22)(CANCELLED BY PERMITTEE RENEWAL BILLING-RUE 7/1/99)

- 1. Engine shall not operate above 1000 rpm. [District Rule 4701]
- 2. Upon District request, rpm shall be verified with a tachometer. [District Rule 4701]
- 3. Engine shall be modified such that maximum achievable power output is not greater than 50 bhp. [District Rule 4701]
- 4. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701]
- Emission rates shall not exceed the following: PM10 0.00 lb/hr, SOx (as SO2) 0.05 lb/day, NOx (as NO2) 1.10 lb/hr, VOC 0.03 lb/hr, CO 0.95 lb/hr. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-21-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

60 BHP MINNEAPOLIS MOLINE MODEL 605 NATURAL GAS FIRED IC ENGINE DERATED TO LESS THAN 50 BHP (WELL #11X-23)(CANCELLED BY PERMITTEE @ RENEWAL BILLING - RUE 7/1/99)

- 1. Engine shall not operate above 1000 rpm. [District Rule 4701]
- 2. Upon District request, rpm shall be verified with a tachometer. [District Rule 4701]
- 3. Engine shall be modified such that maximum achievable power output is not greater than 50 bhp. [District Rule 4701]
- 4. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701]
- 5. Emission rates shall not exceed the following: PM10 0.00 lb/hr, SOx (as SO2) 0.05 lb/day, NOx (as NO2) 1.10 lb/hr, VOC 0.03 lb/hr, CO 0.95 lb/hr. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-22-3 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

195 BHP WAUKESHA MODEL 1197 NATURAL GAS FIRED IC ENGINE WITH 3 WAY CATALYTIC CONVERTER (WELL #2-23).

- 1. Fuel gas sulfur content shall not exceed 0.75 grains of sulfur per 100 dry standard cubic feet of fuel gas. [District NSR Rule], [Federally Enforceable Through Title V]
- 2. Emission concentrations shall not exceed the following: NOx (as NO2): 25 ppmvd @ 15% O2; VOC: 60 ppmvd @ 15% O2; or CO: 1000 ppmvd @ 15% O2. [District Rule 4701 and District NSR Rule], [Federally Enforceable Through Title V]
- 3. Emission rates shall not exceed the following: PM10: 0.07 lb/hr; or SOx (as SO2): 0.00 lb/hr. [District NSR Rule], [Federally Enforceable Through Title V]
- 4. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 5. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 6. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx, VOC, and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 7. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 8. If the catalyst temperature differential is outside of the normal range/level, the permittee shall notify the District and take corrective action (i.e. temperature differential returned to normal range/level) with one (1) hour of detection. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 9. The stack concentration of NOx (as NO2), VOC, CO and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, VOC, CO, and O2 concentrations recording requirements. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. The permittee shall maintain records of the date and time of NOx, VOC, CO, and O2 measurements, and the measured NO2, VOC, and CO concentrations corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. If the NOx, VOC, or CO concentrations, as measured by the portable analyzer, exceed the allowable emission concentrations, the permittee shall notify the District and take corrective action (i.e. the unit's emissions shall be in compliance with the allowable emission rate) within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. Source testing for NOx, VOC, and CO emission sampling limits shall be conducted within 60 days of startup and at least once every 24 months thereafter. [District Rules 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. Source tests shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]

- 16. Source tests shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 18. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 19. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 20. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]
- 26. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 forty-minute test runs for NOx, VOC and CO. This mean shall be multiplied by the appropriate factor to determine compliance with the hourly DELs. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 27. The following conditions must be met for representative units to be used to test for NOx, VOC, and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of rated brake horsepower, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 28. All units in a group for which representative units are annually source tested for NOx, VOC, CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 29. An engine operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 30. The number of representative units source tested for NOx, VOC, and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, such that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 31. Should any of the representative units exceed the required emission limits of this permit, each of the units in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-24-0 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

60 BHP MINNEAPOLIS MOLINE MODEL 605 NATURAL GAS FIRED IC ENGINE DERATED TO LESS THAN 50 BHP (WELL #2-15)(CANCELLED BY PERMITTEE @ RENEWAL BILLING - RUE 7/1/99)

- 1. Engine shall not operate above 1000 rpm. [District Rule 4701]
- 2. Upon District request, rpm shall be verified with a tachometer. [District Rule 4701]
- 3. Engine shall be modified such that maximum achievable power output is not greater than 50 bhp. [District Rule 4701]
- 4. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701]
- 5. Emission rates shall not exceed the following: PM10 0.00 lb/hr, SOx (as SO2) 0.05 lb/day, NOx (as NO2) 1.10 lb/hr, VOC 0.03 lb/hr, CO 0.95 lb/hr. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-26-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF WASH TANK #SO 3823 (GREELEY FIELD)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-27-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #SO 3056 (GREELEY FIELD)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude Oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-28-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK (GREELEY FIELD)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-29-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

84,000 GALLON FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM (GREELEY FIELD)

- 1. The vapor recovery system shall include vapor space piping from tank S-2918-30, and vapor piping to Greeley Gas Plant (S-3247). [District Rule 4623], [Federally Enforceable Through Title V]
- 2. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1], [Federally Enforceable Through Title V]
- 3. The permittee shall maintain accurate records of Reid vapor pressure, storage temperature, types of liquids stored, and average daily throughput on a monthly basis, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623 & 2520, 9.5.2], [Federally Enforceable Through Title V]
- 4. Crude oil throughput shall be less than 500 barrels per day on a monthly average basis. [District NSR Rule], [Federally Enforceable Through Title V]
- 5. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 6. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 15. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 16. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 17. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 18. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 19. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-30-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T2 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-2918-29 (GREELEY FIELD)

- 1. The permittee shall maintain accurate records of Reid vapor pressure, storage temperature, types of liquids stored, and average daily throughput on a monthly basis, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623 & 2520, 9.5.2], [Federally Enforceable Through Title V]
- Crude oil throughput shall be less than 500 barrels per day on a monthly average basis. [District NSR Rule], [Federally Enforceable Through Title V]
- 3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1], [Federally Enforceable Through Title V]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2], [Federally Enforceable Through Title V]
- 5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3], [Federally Enforceable Through Title V]
- 6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]

- 12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 13. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 14. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 15. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4], [Federally Enforceable Through Title V]
- 16. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 4623, 6.2.5], [Federally Enforceable Through Title V]
- 17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 18. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-31-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH PRESSURE VACUUM RELIEF HATCH - #20016 (KERN COUNTY LEASE 61)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude Oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature, and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-32-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

63,000 GALLON FIXED ROOF CRUDE OIL WASH TANK - #3871 (KERN COUNTY LEASE 66)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature, and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-33-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK - #156600 (KERN COUNTY LEASE 66)

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-35-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

210 BHP ROLINE MODEL 844 NATURAL GAS FIRED IC ENGINE WITH JOHNSON-MATTHEY 3-WAY CATALYST (WELL 11-34, GREELEY LEASE)

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations as ppmvd corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing for NOx and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 17. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]

- 18. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 19. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 21. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-36-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

195 BHP WAUKESHA MODEL 1197 NATURAL GAS FIRED IC ENGINE WITH JOHNSON-MATTHEY 3-WAY CATALYST (WELL RAM-2, GREELEY LEASE)

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations as ppmvd corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing for NOx and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 17. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]

- 18. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 19. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 21. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-37-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

195 BHP WAUKESHA MODEL 1197 NATURAL GAS FIRED IC ENGINE WITH JOHNSON-MATTHEY 3-WAY CATALYST (WELL 11-28, GREELEY LEASE)

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations as ppmvd corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing for NOx and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 17. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]

- 18. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 19. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 21. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-38-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

147 BHP MINNEAPOLIS MOLINE MODEL HD-800 NATURAL GAS FIRED IC ENGINE WITH JOHNSON MATTHEY 3-WAY CATALYST (WELL 11-28, GREELEY LEASE)

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations as ppmvd corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing for NOx and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 17. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]

- 18. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 19. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 21. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-39-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

147 BHP MINNEAPOLIS MOLINE MODEL HD-800 NATURAL GAS FIRED IC ENGINE WITH JOHNSON MATTHEY 3-WAY CATALYST (WELL 11-28, GREELEY LEASE)

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations as ppmvd corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing for NOx and CO emissions shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 17. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]

- 18. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 19. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 21. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 23. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 24. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-40-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

CYCLIC 120 BHP WAUKESHA MODEL 145GZU, SERIAL# 944855 NATURAL GAS FIRED IC ENGINE (WELL CLARKSIG, GREELEY LEASE)

- 1. Emission concentrations shall not exceed either of the following: NOx (as NO2): 300 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. NOx and CO emission limits shall be demonstrated not less than once every 24 months, except as provided below. [District Rule 4701]
- 3. NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 4. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 5. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 6. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]
- 7. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane.

 [District Rules 1081 and 4701], [Federally Enforceable Through Title V]
- 8. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of five years and shall make such records readily available for District inspection upon request.

 [District Rules 4701 and 2520, 9.5.2], [Federally Enforceable Through Title V]
- 9. Permittee shall monitor operational parameters as recommended by the manufacturer. [District Rule 4701]
- 10. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 12. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 13. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 14. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 15. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-41-2 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

120 BHP WAUKESHA MODEL 145GZU NATURAL GAS FIRED IC ENGINE (WELL RAM-2, GREELEY LEASE) WITH JOHNSON-MATTHEY 3 WAY CATALYST

- 1. Emission concentrations shall not exceed any of the following: NOx (as NO2): 90 ppmv @15% O2; VOC: 250 ppmv @15% O2; or CO: 2000 ppmv @15% O2. [District Rule 4701]
- 2. The engine shall be equipped with an air/fuel ratio controller and instantaneous readout, as well as provisions for monitoring temperature immediately before and after the catalyst. [District Rule 4701]
- 3. Permittee shall monitor and record, on a weekly basis, the catalyst inlet and outlet temperatures and the air/fuel ratio of each inlet manifold. [District Rule 4701]
- 4. The acceptable catalyst temperature differential shall be established by source testing this unit or other representative units as approved by the District. The normal range/level shall be any temperature increase across the catalyst unless compliance with applicable NOx and CO emissions limits have been demonstrated through source testing at a similar temperature drop. [District Rule 4701]
- 5. The permittee shall maintain records of the date and time of temperature measurements and the measured temperatures. The records shall also include a description of any corrective action taken to maintain the temperature differential at the acceptable level. [District Rule 4701]
- 6. If the catalyst temperature differential is outside of the normal range/level, the permittee shall immediately notify the District and take corrective action. If the catalyst temperature differential rate is not immediately corrected, the permittee shall conduct a source test within 60 days, to demonstrate compliance with the applicable emissions limits at the new temperature differential. [District Rule 4701]
- 7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least every six months using District approved portable analyzers. (In-stack O2 monitors can also be allowed if proposed by the applicant). [District Rule 4701]
- 8. Permittee may utilize a handheld exhaust gas analyzer to comply with the semiannual exhaust gas NOx, CO, and O2 concentrations recording requirements. [District Rule 4701]
- 9. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, and the measured NO2 and CO concentrations corrected to 15% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4701]
- 10. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall promptly notify the District and take corrective action. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days. [District Rule 4701]
- 11. Source testing to demonstrate compliance with NOx and CO emission sampling limits shall be conducted within 60 days of startup and at least once every 24 months thereafter except as provided below. [District Rule 4701]
- 12. Source tests shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081], [Federally Enforceable Through Title V]
- 13. Source testing to measure oxides of nitrogen (NOx) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rule 4701]
- 14. Source testing to measure volatile organic compounds (VOC) shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane. [District Rule 4701]
- 15. Source testing to measure carbon monoxide (CO) shall be conducted using EPA Method 10, or ARB Method 100. [District Rule 4701]
- 16. Source testing to measure stack gas oxygen (O2%) shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rule 4701]
- 17. Source tests shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081], [Federally Enforceable Through Title V]
- 18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081], [Federally Enforceable Through Title V]

- 19. Records of the following shall be taken during each source test and submitted with the test results: air/fuel ratio and inlet-outlet temperature across the catalyst. [District Rule 4701]
- 20. Compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
- 21. An operating log record shall be maintained that includes compliance source test results, monitoring data, make and model of exhaust gas analyzer, exhaust gas analyzer calibration records, and catalyst maintenance and cleaning intervals. [District Rule 4701]
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 24. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 25. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 26. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, or D 3246. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 27. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-45-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

LIGHT OIL PRODUCTION LOADING RACK EQUIPPED WITH ONE 15 HP MOTOR SERVING PTO S-2918-30

- 1. True Vapor Pressure of liquids loaded shall be less than 1.5 psia. [District Rule 4624], [Federally Enforceable Through Title V]
- Operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP and make such records readily available to District staff upon request. All records shall be maintained at the facility for a minimum of five years. [District Rule 4624, 6.1, 2520, 9.4.2 and 2520, 9.5.2], [Federally Enforceable Through Title V]
- 3. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 øF true vapor pressure shall be determined by Reid vapor pressure at 100 øF and ARB approved calculations. [District Rule 4624, 6.2.3 and 2520, 9.4.2], [Federally Enforceable Through Title V]
- 4. TVP of crude oil with an API gravity less than 30ø as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rules 4624, 6.2.4 and 2520, 9.4.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-46-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF OIL STORAGE TANK

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-47-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

52 HP NATURAL GAS FIRED I.C. ENGINE DERATED TO LESS THAN 50 HP WITH ADDITION OF PERMANENT ORIFICE PLATE

- 1. Orifice plate shall have a visible tab to confirm plate installation. [District Rule 4701, 4.5]
- 2. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1], [Federally Enforceable Through Title V]
- 3. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407], [Federally Enforceable Through Title V]
- 5. The sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 6. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2], [Federally Enforceable Through Title V]
- 7. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-48-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-2918-49-1 **EXPIRATION DATE:** 06/30/2005

EQUIPMENT DECRIPTION:

10,500 GALLON FIXED ROOF PETROLEUM STORAGE TANK

- 1. The tank shall be equipped with a pressure relief device set to within 10 percent of the maximum working pressure of the tank. [District Rule 4623, 5.4], [Federally Enforceable Through Title V]
- 2. Crude oil throughput shall be less than 150 barrels per day. [District Rule 4623, 4.2.2], [Federally Enforceable Through Title V]
- 3. Permittee shall maintain monthly records of average daily throughput and shall submit such information to the APCO 30 days prior to annual permit renewal. [District Rule 4623, 6.1.3], [Federally Enforceable Through Title V]
- 4. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1], [Federally Enforceable Through Title V]
- 5. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2], [Federally Enforceable Through Title V]
- 6. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3], [Federally Enforceable Through Title V]
- 7. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2], [Federally Enforceable Through Title V]